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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,308	10/31/2003	Tremitchell Wright	US20030459	3931
7590 06/22/2009 WHIRLPOOL PATENTS COMPANY - MD 0750 Suite 102 500 Renaissance Drive St. Joseph, MI 49085				
EXAMINER KHAN, AMINA S				
ART UNIT		PAPER NUMBER		
1796				
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06/22/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/699,308

**Applicant(s)**

WRIGHT ET AL.

**Examiner**

AMINA KHAN

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 and 42-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 42-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date 1/22/09, 3/27/09
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to applicant's arguments filed January 22, 2009.
2. Claims 1-34 and 42-60 are pending. Claims 35-41 have been cancelled.
3. All prior rejections are withdrawn in view of applicant's arguments with respect to the definitions of static dissipating materials and conductive polymers.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4,12-17,22,42-44 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921).

Estes et al. teach methods of cleaning comprising delivering a wash liquor comprising a substantially non-reactive, non-aqueous, non-oleophilic, apolar working fluid and a washing additive to a fabric load confined in a consumer operated automatic washing apparatus wash container (column 1, lines 5-15) and applying mechanical energy (column 2, lines 56-63). Estes et al. further teach that the washing additive be

chosen from surfactants, enzymes, bleaches, deodorizers, fragrances, anti-static agents and anti-stain agents (column 3, lines 27-31). Estes et al. further teach that the working fluid has the following properties: surface tension of less than or equal to 35 dynes/cm<sup>2</sup>; a KB value of less than or equal to 30; and solubility in water of less than about 10% (column 3, lines 1-6). Estes et al. further teach draining the fluid and recirculating it (see figures). Estes further teaches air drying fabric (column 12, lines 5-15).

Estes et al. do not teach conductive polymers.

Carbonell et al. teach treating washing machine components with conductive polymers to provide corrosion resistance, protection, scratch resistance and solvent resistance (column 4, lines 35, 55-60; column 3, lines 35-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods of Estes by incorporating into the apparatus the conductive polymer coating of Carbonell because Carbonell teaches that the device is useful to provide corrosion resistance, protection, scratch resistance and solvent resistance.

6. Claims 11,21 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921) and further in view of Berndt et al. (US 6,059,845).

Estes et al. and Carbonell et al. are relied upon as described in paragraph 5.

Estes et al. and Carbonell et al. do not teach adjusting the temperature of the apparatus to 30 degrees below the flash point of the working fluid.

Berndt et al., in the analogous art of dry cleaning, teach the importance of controlling the temperature of the cleaning basket to 30°F or more below the flash point of the cleaning solvent (column 4, lines 30-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods of Estes and Carbonell by incorporating controlling the temperature of the dry cleaning fluids to below 30°F of the flash point of the solvent because Berndt teaches the criticality of temperature control (column 6, lines 1-6).

7. Claims 5-8, 18 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921) and further in view of in view of Evers et al. (US 2003/0097718).

Estes et al. and Carbonell et al. are relied upon as described in paragraph 5. Estes et al. further teaches dispensing chambers for spray or mist delivery of wash liquor which comprises the washing additive (column 3, lines 25-50; Figure 3, #43).

Estes et al. and Carbonell et al. do not teach methods of cleaning comprising water-in working fluid emulsions.

Evers et al., in the analogous art of dry cleaning methods, teaches methods of cleaning first comprising a non-aqueous dry cleaning step, followed by a semi aqueous dry cleaning step comprising treating fabric with water a surfactant and a co-solvent (column 2, paragraphs 0018-0027) or reversing the treatment order.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods taught by Estes et al. and Carbonell et al. by incorporating a water-in working fluid treatment step as taught by Evers et al. because Evers et al. teaches the utility of applying low aqueous treatment steps to efficiently dry clean fabric articles. One of ordinary skill in the art would be motivated to combine the teaching of the references absent unexpected results.

8. Claims 9,10,19,20,24-33,48 and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921) and Evers et al. (US 2003/0097718) and further in view of Fytle et al. (US 2004/0117920).

Estes et al., Carbonell et al. and Evers et al. are relied upon as described in paragraph 7. Estes further teaches spinning the fabric before adding the cleaning fluid (figure 9).

Estes et al., Carbonell et al. and Evers et al. do not teach dry cleaning methods comprising sensing means.

Fytle et al., in the analogous art of dry cleaning methods, teaches temperature sensors (page 8, paragraph 0073), conductivity and humidity sensors and solvent moisture sensors (page 9, paragraph 0081; page 10, paragraphs 0092-0093).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning methods taught by Estes et al., Carbonell et al. and Evers et al. by incorporating the temperature, solvent/moisture, humidity and

conductivity sensing steps as taught by Fyvie et al. because Fyvie teaches the utility of sensing the above mentioned parameters to provide more efficient cleaning of fabric articles. One of ordinary skill in the art would be motivated to combine the teaching of the references absent unexpected results.

Regarding the limitation of removing water prior to contacting the fabric with the cleaning fluid, this would be obviously taught by Estes because Estes teaches spinning the fabric before treating it with fluid. The contact with air would be functionally equivalent to drying and obviously remove water.

9. Claims 34 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921), Evers et al. (US 2003/0097718) and Fyvie et al. (US 2004/0117920) and further in view of Berndt et al. (US 6,059,845).

Estes et al., Carbonell et al., Evers et al. and Fyvie are relied upon as described in paragraph 8.

Estes et al., Carbonell et al., Evers et al. and Fyvie do not teach adjusting the temperature of the apparatus to 30 degrees below the flash point of the working fluid.

Berndt et al., in the analogous art of dry cleaning, teach the importance of controlling the temperature of the cleaning basket to 30°F or more below the flash point of the cleaning solvent (column 4, lines 30-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods of Estes et al., Carbonell et al.,

Evers et al. and Fyvie by incorporating controlling the temperature of the dry cleaning fluids to below 30°F of the flash point of the solvent because Berndt teaches the criticality of temperature control (column 6, lines 1-6).

10. Claims 23,46 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921), Evers et al. (US 2003/0097718) and Fyvie et al. (US 2004/0117920) and further in view of Deak et al. (US 2005/0187125).

Estes et al., Carbonell, Evers and Fyvie et al. are relied upon as described in paragraph 9.

Estes et al., Carbonell, Evers and Fyvie et al. are silent as to the HLB value of the surfactants and do not specifically teach the instantly claimed limitation of 3 to 14.

Deak et al., in the analogous art of dry cleaning, teaches methods of cleaning with compositions comprising non-ionic surfactants with HLB values from 6 to 11.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods taught by Estes et al., Carbonell, Evers et al. and Fyvie et al. by incorporating the surfactants taught by Deak et al. because Deak et al. teaches the utility of these surfactants in effectively dry cleaning fabrics. One of ordinary skill in the art would be motivated to combine the teaching of the references absent unexpected results.



11. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921) and further in view of Check (US 4,345,297).

Estes et al. and Carbonell et al. are relied upon as described in paragraph 5.

Estes et al. and Carbonell et al. do not teach bleeding electrons into the laundering apparatus.

Check teaches adding a device for discharging electrostatic fields in a dry cleaning washer by positioning a source of radioactive materials from which electrons flow in a fluid path in said washer (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods of Estes and Carbonell by incorporating into the apparatus the static discharging device of Check because Check teaches that the device is useful in continuously discharging static electricity from dry cleaning fluids to prevent redeposition of soil particles in garments being cleaned in the solvent (column 1, lines 30-50).

12. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Estes et al. (US 6,045,588) in view of Carbonell et al. (US 6,497,921) and further in view of Nagakawa (JP 403128098).

Estes et al. and Carbonell et al. are relied upon as described in paragraph 5.

Estes et al. and Carbonell et al. do not teach increasing the humidity to decrease static build-up.

Nakagawa teaches suppressing the generation of static electricity by humidifying the inside of a washing tank of a dry cleaning machine (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dry cleaning methods of Estes and Carbonell by incorporating into the apparatus the humidifying static discharging device of Nakagawa because Nakagawa teaches that the device is useful in suppressing the generation of static electricity in dry cleaning processes.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M Douyon/  
Primary Examiner, Art Unit 1796

/Amina Khan/  
Examiner, Art Unit 1796  
June 18, 2009